

**R E M A R K S**

**I. Introduction**

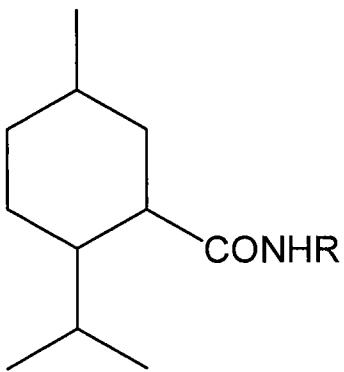
In response to the Office Action dated May 4, 2009, Applicants have amended claims 1, 2 and 4-7 to further clarify the subject matter of the present disclosure. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art references.

**II. The Rejection of Claims 1, 2 And 4-7 Under 35 U.S.C. § 103**

Claims 1, 2 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ogino et al. (USP No 4,678,598), Niemiec et al. (USP No. 6,495,498), or Wetzel (USP No. 4,885,107), all in view of Watson et al. (USP No. 4,136,163); and claims 5-7 are rejected as being unpatentable over Ogino, Niemiec, Wetzel, Watson and in further view of Shiroyama et al. (USP No. 6,328,982). Applicants respectfully submit that the combination of Ogino, Niemiec, Wetzel, Watson and Shiroyama fails to render the pending claims obvious for at least the following reasons.

With regard to the present disclosure, independent claim 1 recites a process for improving a cool and refreshing feeling on a shampoo or body detergent composition comprising following components (A), (B), (C) and (D); (A) one or more cool and refreshing feeling substances selected from the group which consists of menthol, menthone, camphor, pulegol, isopulegol, cineol, Japanese peppermint oil, peppermint oil, spearmint oil, and eucalyptus oil, (B) one or more cool feeling substances selected from the N-substituted-p-menthane-3-carboxamide derivatives represented by the following general formula (I):



wherein R represents an alkyl group or alkenyl group having 1 to 10 carbon atoms,

(C) one or more components selected from anionic surfactants, and  
(D) one or more components selected from water-soluble high-molecular-weight polymers and/or polyhydric alcohols, wherein the ratio of the cool and refreshing feeling substance of the component (A) to the cool feeling substance of the component (B) is (70:30) to (99:1) by weight.

One feature of the present disclosure is that by using a cool and refreshing feeling substance such as menthol with N-substituted-p-menthane-3-carboxamides represented by the general formula (I) at a specific ratio in a shampoo or body detergent composition, an extremely improved cool and refreshing feeling effect on the skin of head and body is given as compared to use of the individual components. As is shown in Tables 2, 4, 5, 7, 8, 10 and 12 of the present disclosure, compositions containing a combination of menthol and N-substituted-p-menthane carboxamide exhibited stronger cool and refreshing feeling than compositions that had similar amounts of either only menthol or only N-substituted-p-menthane carboxamide.

For example, Table 3 lists three compositions of shampoo. Example 2 contains 2.5 parts menthol and 0.5 parts N-substituted-p-menthane carboxamide, Comparative Example 2 contains

3 parts menthol and Comparative Example 3 contains 3 parts N-substituted-p-menthane carboxamide. All other components of the shampoos are identical. The subjects who washed their hair with each shampoo and were asked to compare the cooling sensations of each shampoo. As is shown in Tables 4 and 5, the subjects overwhelmingly chose Example 2, even though the total amounts of cooling agents in each shampoo was 3 parts. Thus, the claimed combination, which has both components (A) and (B), exhibits unexpected superior results over compositions having only one or the other component.

It is admitted that Ogino, Niemiec and Wetzel all fail to teach or disclose the use of the component (B), an N-substituted-p-menthane carboxamide. However, it is alleged that the combination of Watson, which teaches that N-substituted-p-menthane carboxamide compounds have the property of stimulating cold receptors of the nervous system to produce a cold sensation, with any of Ogino, Niemiec and Wetzel discloses the limitations of claim 1 of the present disclosure. Furthermore, Shiroyama discloses a cool feeling agent composition containing a cool feeling substance such as menthol and isopulegol, and vanillyl butyl ether, but fails to teach or suggest the use of N-substituted-p-menthane carboxamide.

Applicants respectfully disagree with the proposed combination. In the Response to Arguments section of the May 4, 2009 Office Action, the Examiner states that “essentially, the prior art teaches the equivalence of menthol to N-substituted-p-menthane-3-carboxamides as cooling agents, each of which is taught by the prior art to be useful for the same purpose”. Further, the Examiner states that “Watson et al. is merely pointing out the fact that menthol has a strong odor...and that other compounds possess the similar cooling effects of menthol without the strong odor”. These statements are simply incorrect and improperly mischaracterize the teachings of Watson.

Applicants strongly traverse the Examiner's conclusion that Watson teaches the equivalence of menthol to N-substituted-p-menthane-3-carboxamides. As Applicants have indicated before, Watson teaches against using menthol. For example, col. 1, lines 37-40 states:

"Although menthol is well established as a physiological coolant, its use, in some compositions, is circumscribed by its strong minty odor and its relative volatility".

Col. 2, lines 2-4 and again in col. 2, lines 7-10 clearly discuss menthol's "disadvantages" mentioned above, namely its very strong odor and its relative volatility."

This is not merely "pointing out the strong odor of menthol," but rather, stating that the strong odor is a disadvantage. One skilled in the art would not use menthol after reading Watson due to these disadvantages. The Examiner is not free to ignore the explicit teachings of the prior art references. Moreover, it is clear that Watson is differentiating menthol and N-substituted-p-menthane-3-carboxamides based upon the difference in odor. As stated in col. 2, lines 11-15, Watson states:

"It is an object of the present invention to provide other compounds having a pronounced physiological cooling effect, in many cases more persistent than that obtained with menthol, without the attendant disadvantages of a strong odor"

Applicants would ask, how could one skilled in the art possibly overcome the odor of menthol if it is added into a composition, as suggested by the Examiner? A skilled artisan could not. Watson is clearly teaching against using menthol due to its disadvantages. Watson desires

to use compounds other than menthol, not compounds *in combination* with menthol. Nowhere in Watson is there any suggestion of using menthol. Further, nowhere in Ogino, Neimiec, Wetzel and Shiroyama is there any suggestion of using N-substituted-p-menthane-3-carboxamides in combination with menthol, as admitted by the Examiner on page 5 of the Office Action. The only suggestion to do so is derived from improper hindsight in view of the present application. As such, Watson neither teaches equivalence of the two compounds, nor that menthol is a desirable cooling agent.

In order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. As is clearly shown, Watson, Ogino, Neimiec, Wetzel and Shiroyama do not disclose a process for improving a cool and refreshing feeling on a shampoo or body detergent composition comprising (A) a cool and refreshing feeling substance such as menthol, and (B) cool feeling substance composed of N-substituted-p-menthane carboxamide, (C) one or more components selected from anionic surfactants, and (D) one or more components selected from water-soluble high-molecular-weight polymers and/or polyhydric alcohols, wherein the ratio of the cool and refreshing feeling substance of the component (A) to the cool feeling substance of the component (B) is (70:30) to (99:1) by weight. As such, Watson, Ogino, Neimiec, Wetzel and Shiroyama fail to render amended claim 1 obvious and accordingly, claim 1 is patentable. Accordingly, Applicants respectfully request that the § 103(a) rejection of claim 1 be withdrawn.

In addition, Watson teaches that the N-substituted-p-menthane carboxamides have a higher cold sensation action than menthol. However, the present disclosure teaches that the ratio of the cool and refreshing feeling substance of the component (A) to the cool feeling substance of the component (B) is (70:30) to (99:1) by weight. In Table 3 of the specification, the blending

ratio of menthol and N-substituted-p-menthane carboxamide in Example 2, Comparative Example 2 and Comparative example 3 are compared, with the results in Tables 4 and 5. Since Example 2 is a combination of menthol and N-substituted-p-menthane carboxamide, and the comparative examples have 100% of one of each, it is apparent from the results that the combination creates better cooling than either menthol or N-substituted-p-menthane carboxamide alone.

Then, when Ogino, Niemiec and Wetzel describe only menthol, one skilled in the art, based on the teachings of Watson, would agree that menthol is inferior to N-substituted-p-menthane carboxamide. As such, one skilled in the art would not be motivated to combine menthol with N-substituted-p-menthane carboxamide, since the menthol would only diminish the efficacy of the N-substituted-p-menthane carboxamide. As such, it is clear that the proposed combination does not render claim 1 obvious.

**III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable**

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims. *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

**IV. Conclusion**

Having responded to all open issues set forth in the Office Action, it is respectfully submitted that all claims are in condition for allowance.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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